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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/775,340

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Kimihiko Nishioka

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7590

11/06/2006

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EXAMINER

PERKEY, WILLIAM B

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/775,340	Applicant(s) NISHIOKA ET AL.	
	Examiner William B. Perkey	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 4-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2,3 and 12-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Claims 1 and 4-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on October 6, 2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 3, 12-20 and 22-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinugasa et al. (U.S. Patent No. 5,475,426) in view of Oshikiri et al. (U.S. Patent No. 5,491,527).

Kinugasa et al. discloses an optical apparatus in Fig. 2; an image sensor 1; an image processor 2,3; and an electronic zoom function performed by elements 3-5. Thus, Kinugasa et al. shows the claimed invention, except for a variable optical-property element which alters the ray deflecting function in accordance with performance of the electronic zoom function and a driving circuit for the variable optical-property element. Oshikiri et al. shows a film type camera with trimming magnification photography. (Trimming magnification photography in film type cameras is similar to electronic zooming in image sensor digital data processing type cameras.) In the embodiments of Figs. 8 and 9 of Oshikiri et al., aberrations are corrected using one or two liquid crystal lenses when changing the magnification by trimming. (The actual enlarging is

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done during the making of the print.) It would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to provide the image sensing type camera of Kinugasa et al. with liquid crystal lens(es) and driving circuitry to correct for aberrations according to the selected magnification factor in order to obtain improved images. Concerning claim 14, note column 11 lines 8-16 suggesting that both the focal length and back focus is also adjusted using the liquid crystal lenses of Fig. 9. This passage fairly conveys to the ordinary workman that an optical change of magnification is performed by the liquid crystal lenses of Fig. 9, in addition to the trimming magnification change. It is self-evident that aberrations caused by manufacturing errors of the optical lenses should be corrected by the driving circuitry of the liquid crystal lenses. Cell phones with image sensing cameras, image displays to show the captured images, endoscopes with image sensing cameras and stops in optical systems of image sensor type cameras were known at the time applicant's invention and do not constitute patentably distinguishing limitations.

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied above, and further in view of Wakai et al. (U.S. Patent No. 7,019,919 B2).

The references as applied above show the claimed invention, except for the optical property element driven to compensate for image shake. Wakai et al. shows numerous embodiments wherein the optical-property element is driven for zoom, focus, shake and aberration correction functions taking into account factors such as temperature and humidity, such as seen in Figs. 25, 27-38, 51 and 69. It would have been obvious to one of ordinary skill in the art, at the time of applicant's invention to also provide a shake and sensor and to drive the

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optical-property element provided for Kinugasa et al. accordingly in order to obtain shake reduce images.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 3, 12-32 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is a lack of recited interconnections between the claimed elements and sufficiently claimed elements to perform the functions set forth in the claims. For example, in claim 2 it is not recited which of the claimed elements it is that performs the function of the wherein phrase. What element is it that the driving circuit responds to perform the wherein function. A similar problem exists in each of the independent claims. None of these limitations can be given patentable weight, until there is sufficient claimed elements and inter-cooperation between the claimed elements to enable the functions.

Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William B. Perkey whose telephone number is (571) 272-2126. The examiner can normally be reached on Monday-Thursday 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached at 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William B. Perkey
Primary Examiner
Art Unit 2851

WBP:wbp
October 31, 2006